

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number	09/722,441
Filing Date	November 28, 2000
First Named Inventor	Paul D. Hanke
Title	Polynucleotides...
Art Unit	1652
Examiner Name	Kathleen M. Kerr
Attorney Docket Number	030692

I hereby appoint

☐ Practitioners at Customer Number

OR

☒ Practitioner(s) named below:

Name	Registration Number
Craig G. Cochenour	33,666
Michael L. Dever	32,216
Duane A. Stewart III	54,468
Bryan H. Opalko	40,751

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Practitioners at Customer Number.

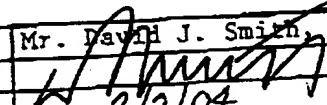
OR

<input checked="" type="checkbox"/> Firm or Individual Name	Craig G. Cochenour, Esq.				
Address	Buchanan Ingersoll PC				
Address	301 Grant Street, 20th Floor	State	PA	Zip	15219
City	Pittsburgh,				
Country	USA	Fax	412-562-1041		
Telephone	412-562-3978				

I am the:

☐ Applicant/Inventor.☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name	Mr. David J. Smith, Executive Vice President, Secretary and General Counsel, Archer-Daniels-Midland Company	
Signature		Telephone 217-424-5200
Date	2/2/04	

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.21 and 1.23. The information is required to obtain or retain a benefit by the public which is to be (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**REVOCATION OF POWER OF  
ATTORNEY OR  
AUTHORIZATION OF AGENT**

Application Number	09/722,441
Filing Date	November 28, 2000
First Named Inventor	Paul D. Hanke
Art Unit	1652
Examiner Name	Kathleen M. Kerr
Attorney Docket Number	030692

I hereby revoke all previous powers of attorney or authorizations of agent given in the above-identified application:

☒ A power of Attorney or Authorization of Agent is submitted herewith.

OR

☐ Please change the correspondence address for the above-identified application to:

☐ Customer Number

Place Customer  
Number Bar Code  
Label here

OR

☐ Firm or  
Individual Name

Address

Address

City

Country

Telephone

State

Zip

Fax

I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

**SIGNATURE of Applicant or Assignee of Record**

Name Mr. David J. Smith, Executive Vice President, Secretary and General  
Counsel, Archer-Daniels-Midland Company

Signature

Date

Telephone

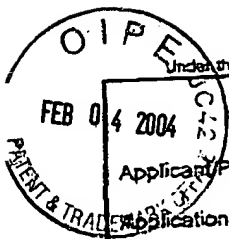
217-424-5200

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Paul D. Hanke, et al.

Application No./Patent No.: 09/722,441 Filed/Issue Date: November 28, 2000  
Polynucleotides Encoding a Feedback Resistant Aspartokinase from  
Entitled: Corynebacterium

Archer-Daniels-Midland Company, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or  
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 012039, Frame 0286, or for which a copy thereof is attached. Reel 012427, Frame 0053

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Feb. 2, 2004  
Date

217-424-5200

Telephone number

David J. Smith

Typed or printed name

Signature

Executive Vice President, Secretary

and General Counsel, Archer-Daniels-Midland Company

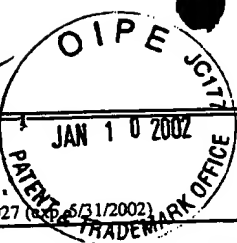
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

NRD  
1-10.03

Corrective



01-10-2002



101940115

U.S. Department of Commerce  
Patent and Trademark Office

Form PTO-1595  
(Rev. 03/01)

RECC

OMB No. 0651-0027 (Rev. 5/31/2002)

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
  
Lhing-Yew Li-D'Elia  
  
Additional name(s) of conveying party(ies) attached? ☐ yes ☒ no

1/10/02  
C

2. Name and address of receiving party(ies):  
  
Name: Archer-Daniels-Midland Company  
  
Internal Address:  
  
Street Address: 4666 E. Faries Parkway

3. Nature of Conveyance:  
  
☐ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☒ Other correction of erroneously recorded  
execution date for inventor Lhing-Yew Li-D'Elia  
on REEL 012039 FRAME 0286  
Execution Date: June 27, 2001

City: Decatur State: IL Zip Code: 62526  
  
Country: U.S.A.  
  
Additional name(s) & address(es) attached? ☐ yes ☒ no

4. Application number(s) or patent number(s):  
  
If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_  
  
A. Patent Application No(s).  
09/722,441

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

5. Name and address of party to whom correspondence concerning document should be mailed:  
  
Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.  
  
Internal Address: c/o 1533.1030002/MAC/PAC  
  
Street Address: 1100 New York Ave., N.W.  
Suite 600  
  
City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: One

7. Total fee (37 C.F.R. § 3.41).....\$ 40.00  
  
☒ Enclosed  
  
☐ Authorized to be charged to Deposit Account

8. Deposit Account Number:  
  
19-0036  
  
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

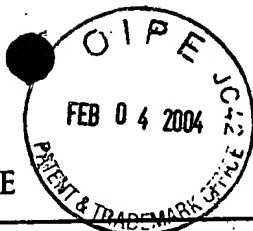
9. Statement and signature.  
*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*  
  
Michele A. Cimballa  
Name of Person Signing  
Registration No. 33,851  
  
Michele A. Cimballa  
Signature  
  
Jun. 9, 2002  
Date

Total number of pages including cover sheet, attachments and document Six (6)

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE



FEBRUARY 27, 2002

PTAS

Chief Information Officer  
Washington, DC 20231  
www.uspto.gov

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
MICHELE A. CIMBALA  
1100 NEW YORK AVE., N.W.  
SUITE 600  
WASHINGTON, DC 20005-3934



\*101940115A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/10/2002

REEL/FRAME: 012427/0053  
NUMBER OF PAGES: 4

BRIEF: CORRECTION OF ERRONEOUSLY RECORDED EXECUTION DAE FOR INVENTOR  
LHING-YEW LI-D'ELIA ON REEL 012039 FRAME 0286

ASSIGNOR:

LI-D'ELIA, LHING-YEW

DOC DATE: 06/27/2001

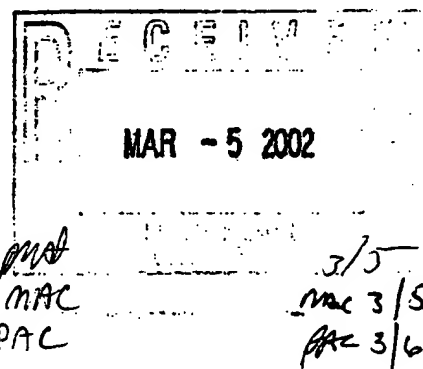
ASSIGNEE:

ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

SHARON BROOKS, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



AUG 8 1 2001

PATENT &amp; TRADEMARK OFFICE

08-08-2001



Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/02)

101803685

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

Additional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ no

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

8/07/2001 TD/AZ1 00000206 09722441

1 FC:581

40.00 DP

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371

Signature

August 1, 2001  
Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.


The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

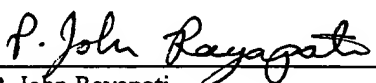


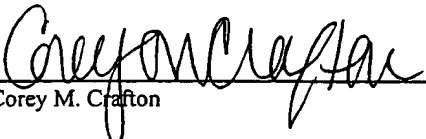
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 25 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

OCTOBER 09, 2001

PTAS

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934



\*101803685A\*

DUPLICATE

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:

LI-D'ELIA, LHING-YEW

DOC DATE: 06/<sup>27</sup>~~25~~/2001

ASSIGNOR:

WALSH, HOLLY

DOC DATE: 07/05/2001

ASSIGNOR:

CRAFTON, COREY M.

DOC DATE: 06/27/2001

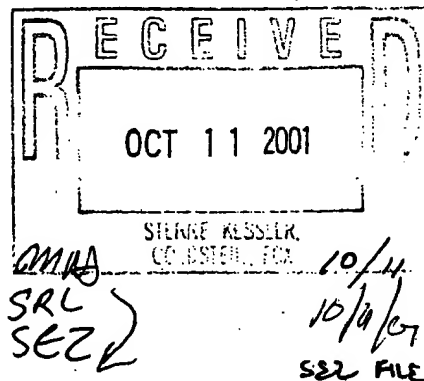
ASSIGNOR:

RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:

ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

08-08-2001



Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/1)

101803685

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Paul D. Hanke  
 Lhing-Yew Li-D'Elia  
 Holly Walsh  
 Corey M. Crafton  
 P. John Rayapati

8-1-01

2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

Additional name(s) of conveying party(ies) attached? ☐ yes ☒ no

3. Nature of Conveyance:

- ☒ Assignment  
☐ Security Agreement  
☐ Other \_\_\_\_\_  
☐ Merger  
☐ Change of Name

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ no

4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R. § 3.41).....\$ 40.00

☒ Enclosed

☐ Authorized to be charged to Deposit Account

8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

8/07/2001 TD AZ1 00000206 09722441

1 FC:581

40.00 DP

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suzanne E. Ziska  
 Name of Person Signing  
 Registration No. 43,371

Signature

August 1, 2001  
 Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:  
 Commissioner of Patents and Trademarks, Box Assignments  
 Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Ravapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SRL 8/1/01  
by Paul D. Hanke  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 6/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.


The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

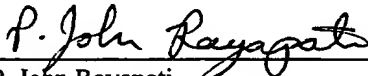
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

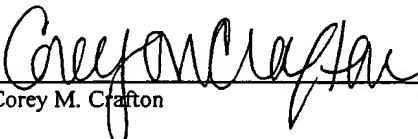
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 25 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

OCTOBER 09, 2001

PTAS

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934



\*101803685A\*

DUPLICATE

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:  
LI-D'ELIA, LHING-YEW

27  
DOC DATE: 06/25/2001

ASSIGNOR:  
WALSH, HOLLY

DOC DATE: 07/05/2001

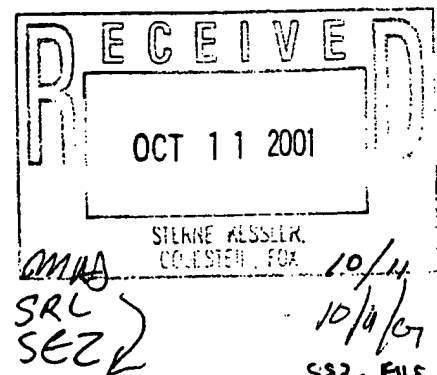
ASSIGNOR:  
CRAFTON, COREY M.

DOC DATE: 06/27/2001

ASSIGNOR:  
RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:  
ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



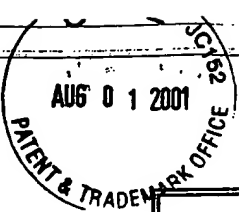
012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS





08-08-2001



101803685

Form PTO-1595  
(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/7)

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

08/07/2001 TDAZ1 00000206 09722441

01 FC:581

40.00 OP

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371  
SignatureAugust 1, 2001  
DateTotal number of pages including cover sheet, attachments and document 7Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Ravapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

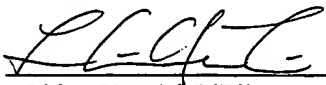
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

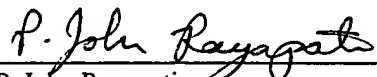
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

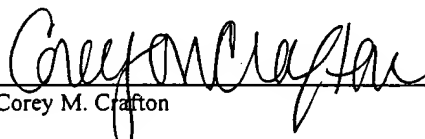
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 25 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

FILE COPY



\*101803685A\*

OCTOBER 09, 2001

PTAS

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:

LI-D'ELIA, LHING-YEW

DOC DATE: 06/25/2001

ASSIGNOR:

WALSH, HOLLY

DOC DATE: 07/05/2001

ASSIGNOR:

CRAFTON, COREY M.

DOC DATE: 06/27/2001

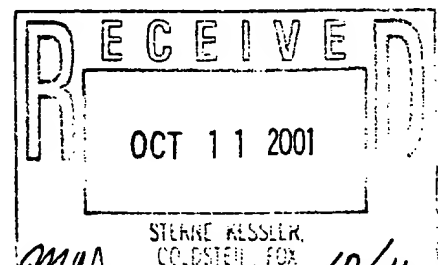
ASSIGNOR:

RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:

ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



CMH  
SRL  
SEZ

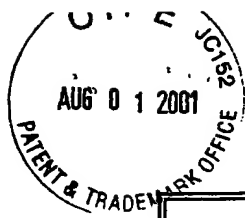
10/11  
10/11/01  
S22 FILE 10/12/01

012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



08-08-2001



Form PTO-1595  
(Rev. 03/01)  
OMB No. 0651-0027 (exp. 5/31/)

101803685

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

08/07/2001 TD AZ1 00000206 09722441  
01 FC:581

40.00 OP

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371

*Suzanne E. Ziska*  
Signature

August 1, 2001  
Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

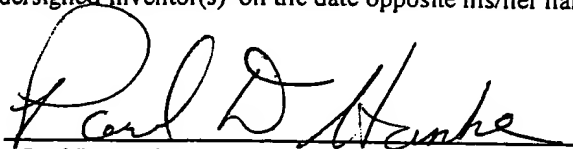
The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: June 27, 2001 Signature of Inventor:   
Paul D. Hanke

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lhing-Yew Li-D'Elia

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
P. John Rayapati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.


The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

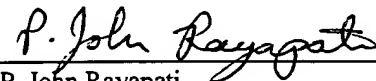
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

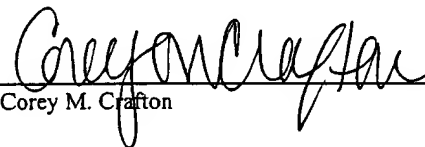
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 25 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Ravapati, Corey M. Crafton, Holly J. Walsh, the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 7/5/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lhing-Yew Li-D'Elia

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
P. John Rayapati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Corry M. Crafton

Date: 7-5-01 Signature of Inventor: Holly J. Walsh  
Holly J. Walsh

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Paul D. Hanke, et al.Application N /Patent No.: 09/722,441 Filed/Issue Date: November 28, 2000  
Polynucleotides Encoding a Feedback Resistant Aspartokinase from  
Entitled: CorynebacteriumArcher-Daniels-Midland Company, a Corporation  
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 012039, Frame 0286, or for which a copy thereof is attached. Reel 012427, Frame 0053

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.  
[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Feb. 2, 2004

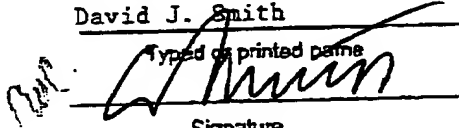
Date

217-424-5200

Telephone number

David J. Smith

Typed or printed name

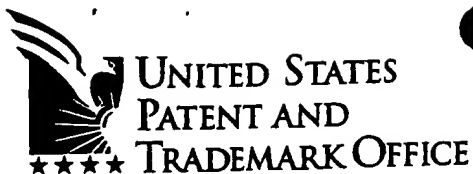


Signature

Executive Vice President, Secretary  
and General Counsel, Archer-Daniels-Midland Company  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



FEBRUARY 27, 2002

Chief Information Officer  
Washington, DC 20231  
www.uspto.gov

PTAS  
STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
MICHELE A. CIMBALA  
1100 NEW YORK AVE., N.W.  
SUITE 600  
WASHINGTON, DC 20005-3934



\*101940115A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 01/10/2002

REEL/FRAME: 012427/0053  
NUMBER OF PAGES: 4

BRIEF: CORRECTION OF ERRONEOUSLY RECORDED EXECUTION DAE FOR INVENTOR  
LHING-YEW LI-D'ELIA ON REEL 012039 FRAME 0286

ASSIGNOR:  
LI-D'ELIA, LHING-YEW

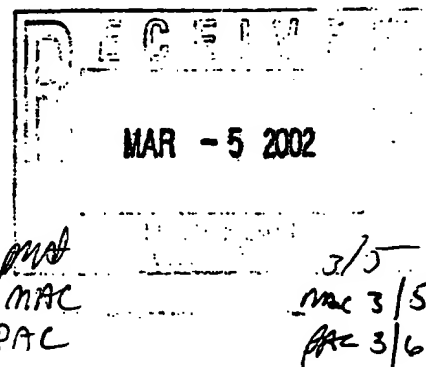
DOC DATE: 06/27/2001

ASSIGNEE:  
ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526

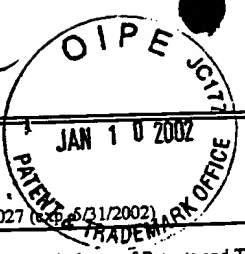
SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

SHARON BROOKS, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



Corrective  
RD  
-10.03



01-10-2002



U.S. Department of Commerce  
Patent and Trademark Office

Form PTG-1595  
(Rev. 03/01)

RECC

101940115

OMB No. 0651-0027 (exp. 6/31/2002)

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies):  Lhing-Yew Li-D'Elia</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>		<p>2. Name and address of receiving party(ies): Name: Archer-Daniels-Midland Company Internal Address:  Street Address: 4666 E. Faries Parkway  City: Decatur State: IL Zip Code: 62526 Country: U.S.A.  Additional name(s) &amp; address(es) attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>				
<p>3. Nature of Conveyance:  <input type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input checked="" type="checkbox"/> Other <u>correction of erroneously recorded</u> <u>execution date for inventor Lhing-Yew Li-D'Elia</u> <u>on REEL 012039 FRAME 0286</u> Execution Date: June 27, 2001</p>						
<p>4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the execution date of the application is _____</p> <table border="1"><tr><td>A. Patent Application No(s). 09/722,441</td><td>B. Patent No(s).</td></tr></table>				A. Patent Application No(s). 09/722,441	B. Patent No(s).	
A. Patent Application No(s). 09/722,441	B. Patent No(s).					
<p>Additional numbers attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no</p>						
<p>5. Name and address of party to whom correspondence concerning document should be mailed:  Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C. Internal Address: c/o 1533.1030002/MAC/PAC  Street Address: 1100 New York Ave., N.W. Suite 600  City: Washington State: D.C. Zip Code: 20005-3934</p>		<p>6. Total number of applications and patents involved: <u>One</u>  7. Total fee (37 C.F.R. § 3.41).....\$ <u>40.00</u>  <input checked="" type="checkbox"/> Enclosed  <input type="checkbox"/> Authorized to be charged to Deposit Account  8. Deposit Account Number:  19-0036  (Attach duplicate copy of this page if paying by deposit account)</p>				
<p>DO NOT USE THIS SPACE</p>						
<p>9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</p> <table border="0"><tr><td><u>Michele A. Cimbala</u> Name of Person Signing Registration No. 33,851</td><td><u>Michele A. Cimbala</u> Signature</td><td><u>Jan. 9, 2002</u> Date</td></tr></table> <p>Total number of pages including cover sheet, attachments and document Six (6)</p> <p>Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks, Box Assignments Washington, D.C. 20231</p>				<u>Michele A. Cimbala</u> Name of Person Signing Registration No. 33,851	<u>Michele A. Cimbala</u> Signature	<u>Jan. 9, 2002</u> Date
<u>Michele A. Cimbala</u> Name of Person Signing Registration No. 33,851	<u>Michele A. Cimbala</u> Signature	<u>Jan. 9, 2002</u> Date				

AUG 8 1 2001

PT &amp; TRADEMARK OFFICE

08-08-2001



Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/02)

101803685

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

7/07/2001 TD/AZI 00000206 09722441

FC:581

40.00 OP

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371

Signature

August 1, 2001  
Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231



## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Dani ls-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SLC 8/1/01  
hywa 3/20/03  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

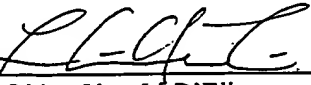
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

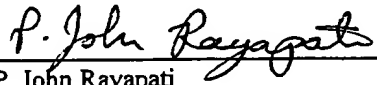
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

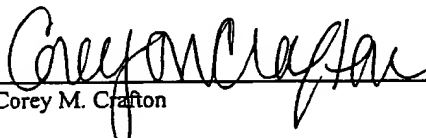
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 27 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

OCTOBER 09, 2001

PTAS  
STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934



\*101803685A\*

DUPLICATE

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:

LI-D'ELIA, LHING-YEW

DOC DATE: 06/<sup>27</sup>~~25~~/2001

ASSIGNOR:

WALSH, HOLLY

DOC DATE: 07/05/2001

ASSIGNOR:

CRAFTON, COREY M.

DOC DATE: 06/27/2001

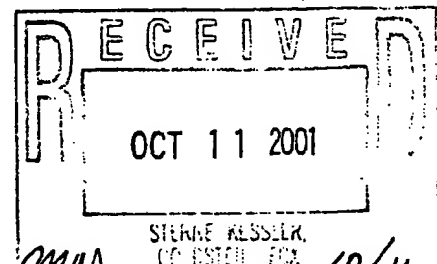
ASSIGNOR:

RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:

ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



QMA  
SRL  
SEZ

10/11  
10/12/01  
S22 FILE 10/12/01

012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

AUG 01 2001

PATENT &amp; TRADEMARK OFFICE

08-08-2001

Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/1)



101803685

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371

Signature

August 1, 2001  
Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

8/07/2001 TD/AZI 00000206 09722441

1 FC:581

40.00 OP

DO NOT USE THIS SPACE

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Ravapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Arch r-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SRL 8/1/01  
hywa 3/20/03  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

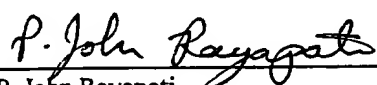
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

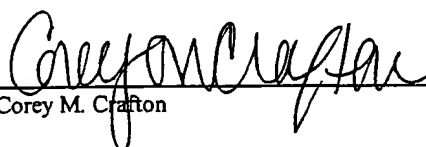
Cimbala, Esquire, Registration No. 33,851; Michael B. Ráy, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 27 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

OCTOBER 09, 2001

PTAS  
STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934



\*101803685A\*

DUPLICATE

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:  
LI-D'ELIA, LHING-YEW

27  
DOC DATE: 06/25/2001

ASSIGNOR:  
WALSH, HOLLY

DOC DATE: 07/05/2001

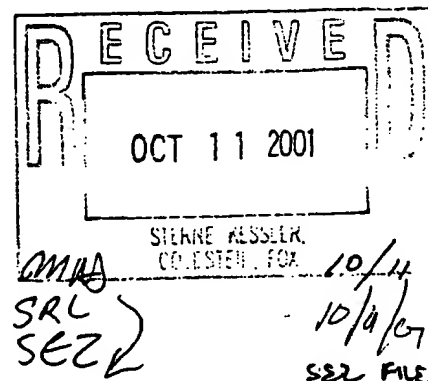
ASSIGNOR:  
CRAFTON, COREY M.

DOC DATE: 06/27/2001

ASSIGNOR:  
RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:  
ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



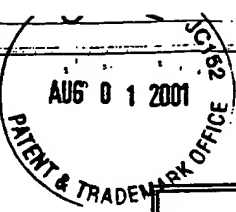


012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



08-08-2001



101803685

Form PTO-1595  
(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/01)

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

08/07/2001 TD 00000206 09722441  
01 FC:581

40.00 OP

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371  
SignatureAugust 1, 2001  
DateTotal number of pages including cover sheet, attachments and document 7Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SR 8/1/01  
hjs 3/20/01  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 6/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

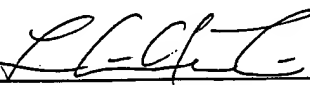
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

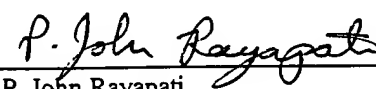
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

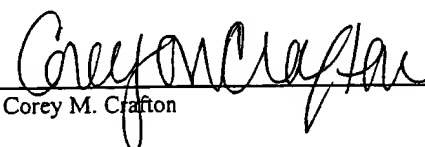
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 25 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

FILE COPY

OCTOBER 09, 2001

PTAS

STERNE, KESSLER, GOLDSTEIN & FOX, PLLC  
SUZANNE E. ZISKA  
1100 NEW YORK AVENUE, N.W., SUITE 600  
WASHINGTON, D.C. 20005-3934



\*101803685A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/01/2001

REEL/FRAME: 012039/0286  
NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
HANKE, PAUL D.

DOC DATE: 06/27/2001

ASSIGNOR:  
LI-D'ELIA, LHING-YEW

DOC DATE: 06/25/2001

ASSIGNOR:  
WALSH, HOLLY

DOC DATE: 07/05/2001

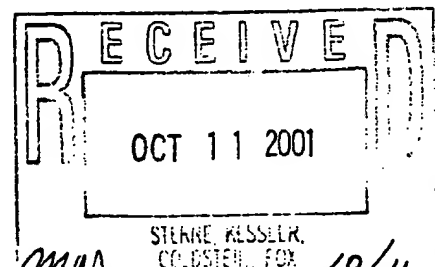
ASSIGNOR:  
CRAFTON, COREY M.

DOC DATE: 06/27/2001

ASSIGNOR:  
RAYAPATI, P. JOHN

DOC DATE: 06/25/2001

ASSIGNEE:  
ARCHER-DANIELS-MIDLAND COMPANY  
4666 E. FARIES PARKWAY  
DECATUR, ILLINOIS 62526



QMA  
SRL  
SEZ

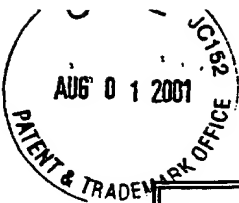
10/14  
10/14/01  
SEZ FILE 10/12/01

012039/0286 PAGE 2

SERIAL NUMBER: 09722441  
PATENT NUMBER:

FILING DATE: 11/28/2000  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



08-08-2001



Form PTO-1595

(Rev. 03/01)

OMB No. 0651-0027 (exp. 5/31/)

SHEET

U.S. Department of Commerce  
Patent and Trademark Office

101803685

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Paul D. Hanke  
Lhing-Yew Li-D'Elia  
Holly Walsh  
Corey M. Crafton  
P. John Rayapati

8-1-01

## 2. Name and address of receiving party(ies):

Name: Archer-Daniels-Midland Company

Internal Address:

Street Address: 4666 E. Faries Parkway

City: Decatur State: Illinois Zip Code: 62526

Country:

Additional name(s) & address(es) attached? ☐ yes ☒ noAdditional name(s) of conveying party(ies) attached? ☐ yes ☒ no

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: 6/27, 6/27, 6/25, 6/27, 7/5

## 4. Application number(s) or patent number(s): 09/722,441

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s).

B. Patent No(s).

Additional numbers attached? ☐ yes ☒ no

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

Internal Address: c/o Suzanne E. Ziska

Street Address: 1100 New York Ave., N.W.  
Suite 600

City: Washington State: D.C. Zip Code: 20005-3934

6. Total number of applications and patents involved: 17. Total fee (37 C.F.R. § 3.41).....\$ 40.00☒ Enclosed☐ Authorized to be charged to Deposit Account

## 8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

08/07/2001 TD AZ1 00000206 09722441

01 FC:581

40.00 DP

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Suzanne E. Ziska  
Name of Person Signing  
Registration No. 43,371  
SignatureAugust 1, 2001  
DateTotal number of pages including cover sheet, attachments and document 7Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SRL 8/1/01  
RJ 02.36.209  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2000) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

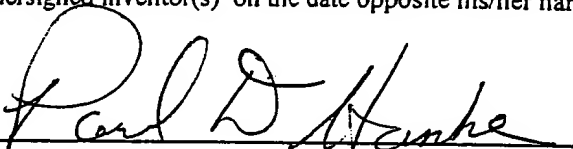
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.



Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: June 27, 2001 Signature of Inventor:   
Paul D. Hanke

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lhing-Yew Li-D'Elia

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
P. John Rayapati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Rayapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

SR 8/1/01  
h/ma 3/20/01  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 6/27/01, 6/25/01, 4/27/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

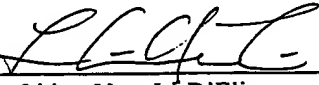
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

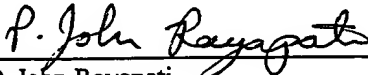
The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

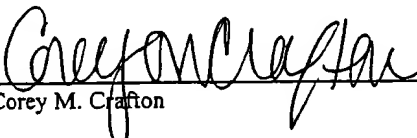
Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: 27 June 2001 Signature of Inventor:   
Lhing-Yew Li-D'Elia

Date: 25 Jun 01 Signature of Inventor:   
P. John Rayapati

Date: 27 Jun 01 Signature of Inventor:   
Corey M. Crafton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Holly J. Walsh

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Paul D. Hanke, Lhing-Yew Li-D'Elia, P. John Ravapati, Corey M. Crafton, Holly J. Walsh the undersigned inventor(s) hereby sell(s) and assign(s) to Archer-Daniels-Midland Company (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

5RL 8/1/01  
Ry No 31203  
(a) in the invention(s) known as Increased Lysine Production by Gene Amplification for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 7/5/01 (also known as United States Application No. 09/722,441 filed November 28, 2001) in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor, and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A.

Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Paul D. Hanke

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lhing-Yew Li-D'Elia

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
P. John Rayapati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Cory M. Crafton

Date: 7-5-01 Signature of Inventor: Holly J. Walsh  
Holly J. Walsh